```
L1              STRUCTURE UPLOADED
                S L1

     FILE 'REGISTRY' ENTERED AT 21:24:17 ON 13 JUN 2003
L2            34 S L1 SSS FULL

     FILE 'CAPLUS' ENTERED AT 21:24:18 ON 13 JUN 2003
L3            92 S L2 SSS FULL

     FILE 'STNGUIDE' ENTERED AT 21:25:01 ON 13 JUN 2003

     FILE 'CAPLUS' ENTERED AT 21:25:49 ON 13 JUN 2003
L4              STRUCTURE UPLOADED
                S L4

     FILE 'REGISTRY' ENTERED AT 21:26:08 ON 13 JUN 2003
L5            22 S L4 SSS FULL

     FILE 'CAPLUS' ENTERED AT 21:26:09 ON 13 JUN 2003
L6            79 S L5 SSS FULL
L7        738466 SOLID(W)(SUPPORT OR PHASE) OR COMBINATORIAL OR GLASS
L8            14 L6 AND L7

=> d que stat l3
L1              STR
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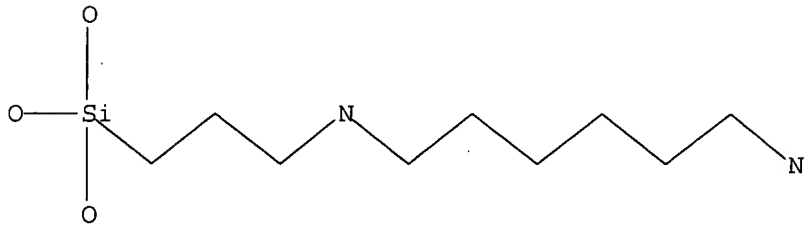


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Structure attributes must be viewed using STN Express query preparation.
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L3            92 SEA FILE=CAPLUS ABB=ON  PLU=ON  L2


=> d que stat l6
L4              STR
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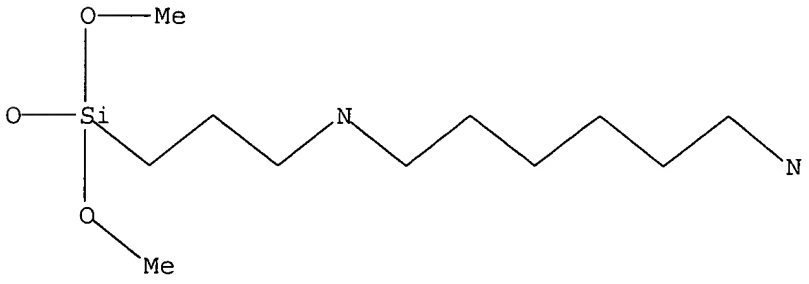


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Structure attributes must be viewed using STN Express query preparation.
L5            22 SEA FILE=REGISTRY SSS FUL L4
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L6 79 SEA FILE=CAPLUS ABB=ON PLU=ON L5

=> d 18 total ibib abs hitstr

L8 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2003:261717 CAPLUS
DOCUMENT NUMBER: 138:276361
TITLE: Nitric oxide-releasing coated medical devices and method of preparing same
INVENTOR(S): Fitzhugh, Anthony; Cheng, Peiwen
PATENT ASSIGNEE(S): The Government of the United States of America, Represented by the Secretary Department of Health and Human Services, USA
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003026717	A1	20030403	WO 2002-US30160	20020923

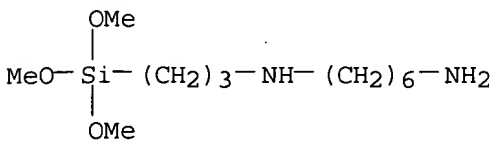
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-325049P P 20010926

AB A method for preparing a nitric oxide-releasing substrate that includes contacting an amine-functionalized silane with a substrate, contacting at least one addnl. amine-functionalized silane with the substrate, and contacting the substrate with nitric oxide, and repeating these steps if and as desired to produce a coating of the desired thickness as well as quantity and duration of nitric oxide-release. Thus, trimethoxysilylpropyldiethylenetriamine, MeOH and water were mixed and transferred to an container. A stainless steel coupon was subjected to spraying for 3 s (3 times) and rotation in air for 15 s (3 times). The coupon was then placed in an oven at 60° to cure for 30 min. and after the coupon was removed from the oven and allowed to cool to room temperature, the procedure was repeated 2 addnl. times. The reiteratively- or multiply-coated coupon was placed in an oven at 60° overnight to cure. The next morning, the coupon was removed from the oven and allowed to cool to room temperature The tube was then transferred to a Parr hydrogenation pressure vessel and oxygen was removed from the vessel using repeated cycles of pressurization/depressurization with nitrogen gas. This was followed by the introduction of NO at a pressure of 276 kPa (40 psi). The tube containing the coupon was exposed to the NO gas for 24 h. The total NO release was measured at 10,060 pmol/mm2.

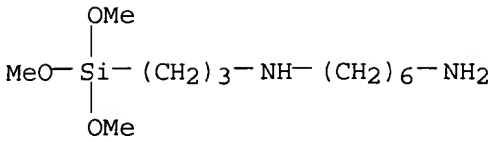
IT **51895-58-0**
RL: PEP (Physical, engineering or chemical process); PYP (Physical

process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(nitric oxide-releasing coated medical devices)
RN 51895-58-0 CAPLUS
CN 1,6-Hexanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:977479 CAPLUS
DOCUMENT NUMBER: 138:159255
TITLE: Principle in Imaging Contrast in Scanning Electron Microscopy for Binary Microstructures Composed of Organosilane Self-Assembled Monolayers
AUTHOR(S): Saito, N.; Wu, Y.; Hayashi, K.; Sugimura, H.; Takai, O.
CORPORATE SOURCE: Department of Materials Engineering, Graduate School of Engineering, Nagoya University, Nagoya, 464-8603, Japan
SOURCE: Journal of Physical Chemistry B (2003), 107(3), 664-667
CODEN: JPCBFK; ISSN: 1520-6106
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Field-emission electron microscopy (FE-SEM) was applied to observe coplanar microstructures composed of two different types of organosilane self-assembled monolayers (SAMs). These binary microstructures were prepared on silicon substrates covered with native oxide by a lithog. technique. Four types of organosilane precursors, they are n-octadecyltrimethoxysilane (ODS), heptadecafluoro-1,1,2,2-tetrahydro-decyl-1-trimethoxysilane (a type of fluoroalkylsilane, FAS), n-(6-aminohexyl)aminopropyltrimethoxysilane (AHAPS), and 4-(chloromethyl)phenyltrimethoxysilane (CMPhS), were used in this study. Micropatterns composed of the SAMs were clearly imaged by FE-SEM at low acceleration voltages, around 0.6 kV. The brightness order of the SAMs in FE-SEM was ODS > AHAPS > CMPhS > FAS. Through ab initio MO calcns., the origin of this FE-SEM contrast was ascribed to the electron affinity between the SAMs, which governed the FE-SEM image contrast. It has been successfully demonstrated that FE-SEM could provide us chem. information on organic films with a monomol. thickness on a **solid support**.
IT **51895-58-0D**, silica bound
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(imaging contrast in SEM for binary microstructures composed of organosilane SAMs)
RN 51895-58-0 CAPLUS
CN 1,6-Hexanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:472978 CAPLUS
DOCUMENT NUMBER: 135:72120
TITLE: Protein synthesis from amplified, immobilized nucleic acids using primers containing transcription and translation signals
INVENTOR(S): Chrisey, Linda A.; Andreadis, Joanne D.
PATENT ASSIGNEE(S): Government of the United States of America as Represented by the Secretary of the Navy, USA
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001046471	A1	20010628	WO 2000-US34426	20001220

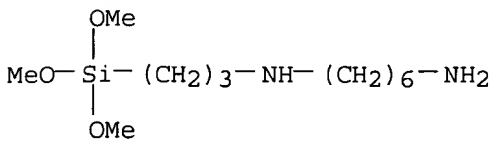
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-468618 A 19991221

AB A protein is made by immobilizing a PCR primer onto a **solid support**, then using the immobilized PCR primer along with a soluble primer to amplify and immobilize a template DNA containing a protein coding sequence onto the **solid support**. The template DNA and/or the PCR primers also contain regulatory sequences for transcription and translation of the coding sequence. The immobilized DNA is then transcribed and translated to produce the protein. The immobilized DNA may be reused for multiple cycles of transcription and translation. By immobilizing a universal PCR primer onto the **solid support**, different template DNAs can be amplified and immobilized and a number of different proteins can be made at the same time. If particles are used as the **solid support**, the particles may be injected into an organism so that the steps of transcription and translation take place within the organism to produce a protein vaccine or therapeutic.

IT **51895-58-0**
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or

reagent); USES (Uses)
(in immobilization of primers; protein synthesis from amplified, immobilized nucleic acids using primers containing transcription and translation signals)
RN 51895-58-0 CAPLUS
CN 1,6-Hexanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:152869 CAPLUS
DOCUMENT NUMBER: 134:159906
TITLE: Method for the covalent immobilization and labeling of biopolymers especially the preparation of nucleic acid microarrays
INVENTOR(S): Ansorge, Wilhelm; Faulstich, Konrad
PATENT ASSIGNEE(S): Europaeisches Laboratorium Fuer Molekularbiologie (EMBL), Germany
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001014585	A1	20010301	WO 2000-EP8193	20000822
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 10016073	A1	20010301	DE 2000-10016073	20000331
EP 1212466	A1	20020612	EP 2000-962356	20000822
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

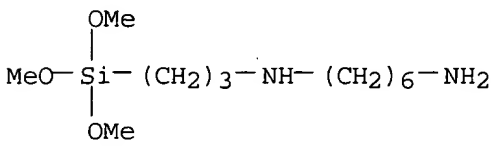
PRIORITY APPLN. INFO.: DE 1999-19940077 A 19990824
DE 2000-10016073 A 20000331
WO 2000-EP8193 W 20000822

AB The invention relates to methods for covalent immobilization of biopolymers, especially those of nucleic acids, on a **solid phase**. Covalent bonds are made between primary or/and secondary amino groups of said biopolymers and groups of the **solid phase** which react with said amino groups. Silica-based

solid phases with defined functional groups are used for the immobilization of 5' amino-modified nucleotides; the prepared DNA microarrays are used in amplification procedures.

IT **51895-58-0**
RL: DEV (Device component use); USES (Uses)
(method for covalent immobilization and labeling of biopolymers especially preparation of nucleic acid microarrays)

RN 51895-58-0 CAPLUS
CN 1,6-Hexanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

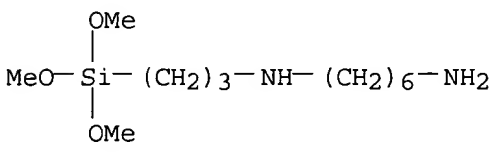
L8 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:632763 CAPLUS
DOCUMENT NUMBER: 133:203445
TITLE: Use of immobilized PCR primers to generate covalently immobilized DNAs for in vitro transcription/translation reactions
AUTHOR(S): Andreadis, Joanne D.; Chrisey, Linda A.
CORPORATE SOURCE: Center for Bio/Molecular Science and Engineering, Naval Research Laboratory, Washington, DC, 20375-5348, USA
SOURCE: Nucleic Acids Research (2000), 28(2), e5, ii-viii
CODEN: NARHAD; ISSN: 0305-1048
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We have developed a novel biochem. method to simultaneously amplify and immobilize a target gene onto insol. particles using PCR. This method employs the covalent attachment of one of two PCR primers to a particle surface either directly during DNA synthesis of the primer or post-DNA synthesis, through the use of chem. crosslinkers. Immobilization of the target gene can be achieved directly during PCR amplification, with one bead-bound primer and one soluble primer. Alternatively, this can be achieved post-PCR, through covalent attachment of a chem. modified primer incorporated into the amplicon to an activated particle. All of the immobilized DNA templates containing appropriate regulatory regions were fully competent for transcription and translation reactions and several could be re-used in serial reactions. The most successfully strategy utilized amino-silanized controlled pore **glass** beads, which were coupled to phosphorylated primers using carbodiimide chem. These bead-bound primers were used during PCR to generate attached DNA templates that could be collected and re-used for at least seven sequential transcription reactions without significant loss in efficiency. This method has also been successfully applied to the amplification, transcription and translation of multiple DNA templates using a single, immobilized primer. The combined PCR-based amplification/immobilization method was shown to be more durable than post-PCR chem. immobilization and affords the convenience of performing sequential PCR amplification, transcription and

translation reactions in a single tube.

IT **51895-58-0D**, controlled pore **glass** bead derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(use of immobilized PCR primers to generate covalently immobilized DNAs for in vitro transcription/translation reactions)

RN 51895-58-0 CAPLUS
CN 1,6-Hexanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:11004 CAPLUS
DOCUMENT NUMBER: 124:57884
TITLE: Alkoxysilane coupling agents for fiber-reinforced composites and their manufacture and uses
INVENTOR(S): Yanagisawa, Hideyoshi; Ichinohe, Seiji
PATENT ASSIGNEE(S): Shinetsu Chem Ind Co, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07228587	A2	19950829	JP 1994-41949	19940216

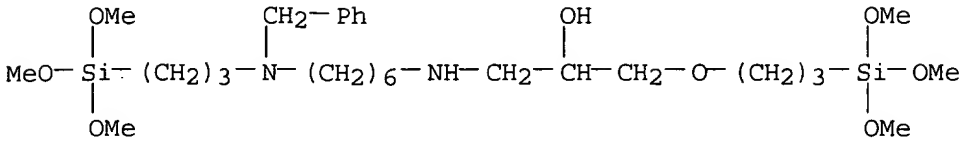
PRIORITY APPLN. INFO.: JP 1994-41949 19940216
OTHER SOURCE(S): MARPAT 124:57884

AB The title coupling agents, useful for use on reinforcements in elec. circuit board laminates with good resistance to soldering heat crack, are selected from alkoxysilyl-terminated (poly)alkylene(poly)amines bearing specified substituting groups or their halogen acid salts, and optionally are used with epoxysilane compds. Thus, adding dropwise γ-glycidyloxypropyltrimethoxysilane to N-(β-aminoethyl)-γ-aminopropyltrimethoxysilane, mixing at 140° for 4 h, cooling, adding chloromethylstyrene, and mixing for 28 h at 80° gave a coupler, i.e. (MeO)3Si(CH2)3NRCH2CH2NHCH2C(OH)HCH2O(CH2)3Si(OMe)3·H Cl (R = vinylbenzyl group). Treating **glass** cloths with the above coupler gave treated substrates which were then processed to epoxy resin-impregnated prepregs useful for manufacture of Cu-clad laminates with good soldering heat crack resistance.

IT **171967-89-8P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manufacture of coupling agents for fiber-reinforced composites)

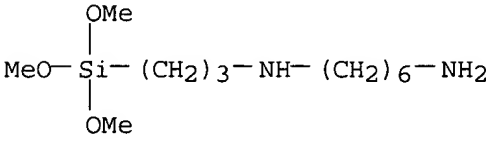
RN 171967-89-8 CAPLUS
CN 2,7,23-Trioxa-11,18-diaza-3,22-disilatetracosan-9-ol, 3,3,22,22-

tetramethoxy-18-(phenylmethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

IT **51895-58-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction in manufacture of heat-resistant coupling agents for laminated board)
RN 51895-58-0 CAPLUS
CN 1,6-Hexanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:769926 CAPLUS
DOCUMENT NUMBER: 123:164641
TITLE: Biotin silane compounds and binding matrixes containing these compounds
INVENTOR(S): Sluka, Peter; Batz, Hans-Georg
PATENT ASSIGNEE(S): Boehringer Mannheim GmbH, Germany
SOURCE: Ger. Offen., 22 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4435728	A1	19950720	DE 1994-4435728	19941006
EP 664452	A2	19950726	EP 1995-100632	19950118
EP 664452	A3	19961023		
EP 664452	B1	20020731		
AT 221660	E	20020815	AT 1995-100632	19950118
ES 2179853	T3	20030201	ES 1995-100632	19950118
JP 07260790	A2	19951013	JP 1995-6770	19950119
JP 3214795	B2	20011002		
US 5851840	A	19981222	US 1996-774579	19961231

PRIORITY APPLN. INFO.: DE 1994-4401450 A1 19940119
DE 1994-4435728 A 19941006
US 1995-375035 B1 19950119

AB The invention concerns a binding matrix containing a support material that has an oxidized surface and **solid-phase** reactant(s) covalently bound to it by means of anchor groups, the reactant(s) being able to bind at least 1 free reaction partner, the invention being characterized in that the **solid-phase** reactant forms a thin and essentially homogeneous binding layer on the surface of the support material and that the anchor groups are silane groups that are linked to the **solid-phase** reactants by means of spacer mols. The syntheses of several biotin-silanes are described, and the preparation of anal. elements for the determination of TSH in blood plasma by immunoassay is given as an example.

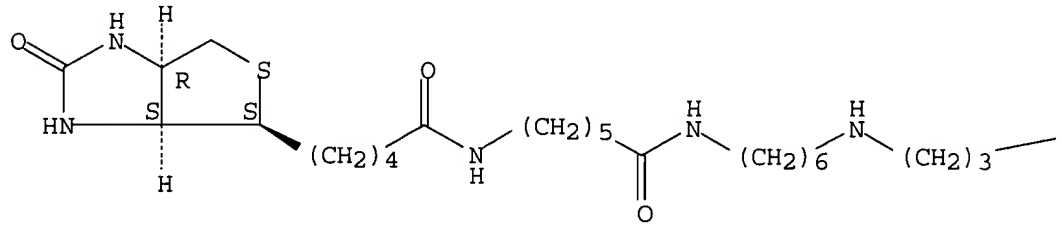
IT **167221-27-4P 167221-39-8P 167221-47-8P**
RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(biotin-silane compds. and binding matrixes containing them for biochem. anal.)

RN 167221-27-4 CAPLUS

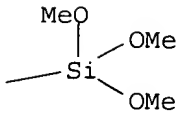
CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-(18,18-dimethoxy-6-oxo-19-oxa-7,14-diaza-18-silaeicos-1-yl)hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



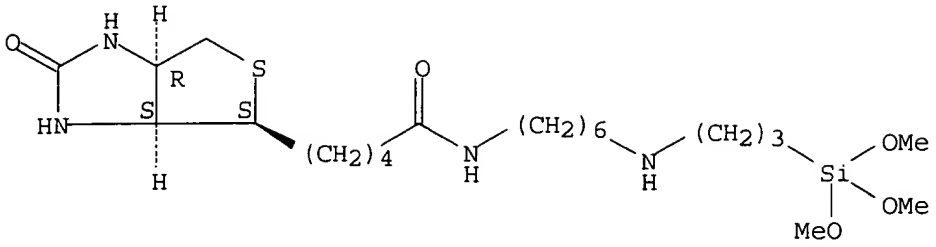
PAGE 1-B



RN 167221-39-8 CAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, hexahydro-2-oxo-N-[6-[[3-(trimethoxysilyl)propyl]amino]hexyl]-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

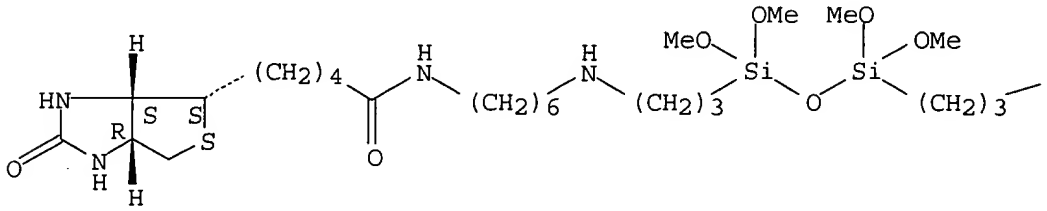
Absolute stereochemistry.



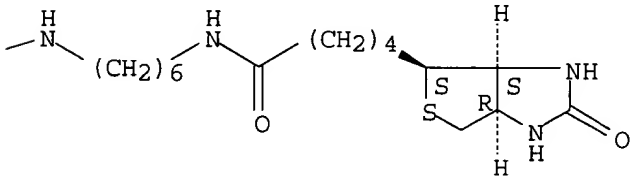
RN 167221-47-8 CAPLUS
CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, N,N'-[(1,1,3,3-tetramethoxy-1,3-disiloxanediyl)bis(3,1-propanediylimino-6,1-hexanediyl)]bis[hexahydro-2-oxo-, [3aS-[3aα,4β(3'aR*,4'R*,6'aS*),6aα]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

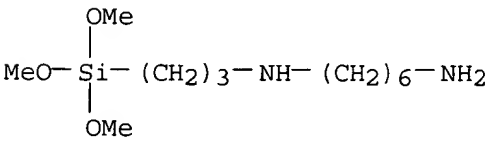
PAGE 1-A



PAGE 1-B



IT **51895-58-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(biotin-silane compds. and binding matrixes containing them for biochem. anal.)
RN 51895-58-0 CAPLUS
CN 1,6-Hexanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



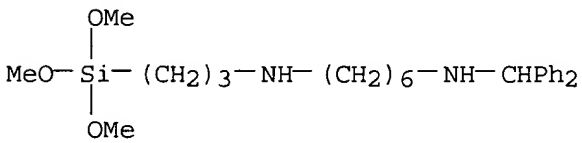
L8 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:558516 CAPLUS
DOCUMENT NUMBER: 123:288828
TITLE: Amino silanes as coupling agents for **glass** fibers in reinforced plastics
INVENTOR(S): Sato, Minoru
PATENT ASSIGNEE(S): Asahi Shueeberu Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07053571	A2	19950228	JP 1993-217963	19930811

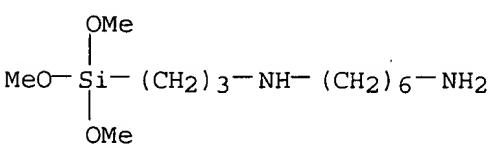
PRIORITY APPLN. INFO.: JP 1993-217963 19930811
OTHER SOURCE(S): MARPAT 123:288828

AB Silanes PhnCH3-nNHR1NHR2SiMemR33-m and PhnCH3-nNHR2SiMemR33-m (R1 = divalent C≤6 aliphatic hydrocarbyl; R2 = divalent C≤10 aliphatic hydrocarbyl or aromatic ring-containing hydrocarbyl; R3 = hydrolyzable group; m = 0-2; n = 2-3) or their acid salts are prepared for use in the manufacture of laminated circuit boards, etc. Reacting H2NCH2CH2NH(CH2)3Si(OMe)3 with Ph3CCl gave Ph3CNHCH2CH2NH(CH2)3Si(OMe)3.HCl which was used as a coupling agent for **glass** fabric in an epoxy resin in the manufacture of a laminated circuit board.

IT **169938-95-8P**
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(preparation and use as coupling agents for **glass** fibers in epoxy resins for circuit boards)
RN 169938-95-8 CAPLUS
CN 1,6-Hexanediamine, N-(diphenylmethyl)-N'-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



IT **51895-58-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with di- and triphenylmethyl chloride in preparation of coupling agents)
RN 51895-58-0 CAPLUS
CN 1,6-Hexanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:165970 CAPLUS
DOCUMENT NUMBER: 120:165970
TITLE: **Glass**-reinforced chemically coupled branched higher alpha-olefin compounds
INVENTOR(S): Hagenson, Mary J.; Soules, David A.; Sutherlin, Dirk M.; Selby, Larry M.
PATENT ASSIGNEE(S): Phillips Petroleum Co., USA
SOURCE: U.S., 19 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

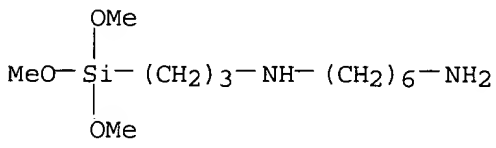
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5272195	A	19931221	US 1992-914167	19920714

PRIORITY APPLN. INFO.: US 1992-914167 19920714

AB The title comprise stabilized stereoregular polymers (optionally blends) of branched higher alpha-olefins grafted with functional unsatd. compds. using free radical generators, **glass** (fibers), amino-functional silanes, and polyurethane film formers.

IT **51895-58-0**
RL: USES (Uses)
(coupling agent, for **glass** fiber-reinforced branched polyolefin blends)

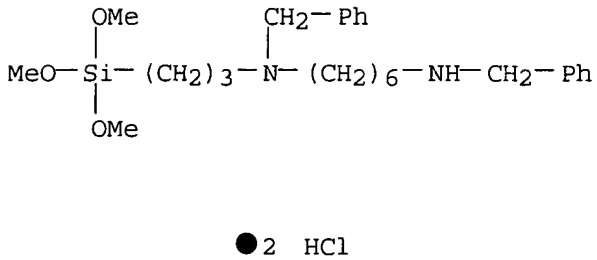
RN 51895-58-0 CAPLUS
CN 1,6-Hexanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:104275 CAPLUS
DOCUMENT NUMBER: 118:104275
TITLE: Aminosilanes as coupling agents for fiber-reinforced plastics
INVENTOR(S): Yamatani, Masaaki; Yanagisawa, Hideyoshi; Suzuki, Yoshiharu; Saito, Junichi
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan; Nitto Boseki Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

JP 04178432 A2 19920625 JP 1990-305749 19901109
JP 2920324 B2 19990719
PRIORITY APPLN. INFO.: JP 1990-305749 19901109
AB The title coupling agents comprise organic or inorg. salts of aminosilanes. Thus, **glass** cloths were treated with hydrochloric acid salt of (MeO)3Si(CH2)3N(CH2Ph)(CH2)2NHCH2Ph and impregnated with a composition containing
Epikote 1001 80, Epikote 154 20, and dicyandiamide 4.0 parts to give prepregs, 8 layers of which were laminated both sides with Cu foil and press molded to give a laminate having water absorptivity 0.61 and 1.08% and solder resistance (area damaged) 0 and 5.8%, after dipped in boiling water for 4 and 14 h, resp., vs. 0.75, 1.52, 28.5, and >80, resp., for (MeCh2O)3Si(CH2)3NH2 instead.
IT **145151-36-6**
RL: USES (Uses)
(coupling agents, for **glass** fibers in reinforced plastics)
RN 145151-36-6 CAPLUS
CN 1,6-Hexanediamine, N,N'-bis(phenylmethyl)-N-[3-(trimethoxysilyl)propyl]-, dihydrochloride (9CI) (CA INDEX NAME)



L8 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1989:628009 CAPLUS
DOCUMENT NUMBER: 111:228009
TITLE: Immobilization of physiologically active substances with aminoalkylalkoxysilane
INVENTOR(S): Kobayashi, Hideki; Matsunaga, Tadashi
PATENT ASSIGNEE(S): Toray Silicone Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 4 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 325404	A2	19890726	EP 1989-300394	19890117
EP 325404	A3	19900328		
EP 325404	B1	19940810		
R: BE, DE, FR, GB, IT				
JP 01181790	A2	19890719	JP 1988-7680	19880118
CA 1336508	A1	19950801	CA 1989-588318	19890116
US 5002884	A	19910326	US 1989-297793	19890117

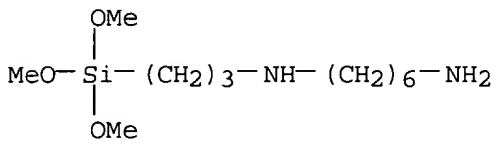
PRIORITY APPLN. INFO.: JP 1988-7680 19880118
OTHER SOURCE(S): MARPAT 111:228009

AB Physiol. active substances, e.g. enzymes, antibodies, hormones, are immobilized on an inorg. support by treating the support with an aminoalkylalkoxysilane (RO)3SiCH2CH2CH2-NH(CH2)nNH2 (I; R = C1-4 alkyl; n = 5-12) and chem. bonding the physiol. active substance by means of an amino group to the I-treated inorg. support. Silica gel was reacted with N-(8-aminooctyl)-3-aminopropyl-trimethoxysilane for 3 h at 100°, coupled with glutaraldehyde for 4 h to introduce the aldehyde group, washed, and incubated with glucose oxidase for immobilization. The activity of the silica gel-immobilized glucose oxidase was 3.0 units/g of carrier compared to 1.8 units/g carrier for that immobilized with 3-aminopropyltriethoxysilane.

IT **51895-58-0**
RL: BIOL (Biological study)
(porous **glass** powder treated with, thermolysine immobilization on)

RN 51895-58-0 CAPLUS

CN 1,6-Hexanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



L8 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1989:575443 CAPLUS

DOCUMENT NUMBER: 111:175443

TITLE: Aminosilane coupling agents for **glass** fiber-resin composites

INVENTOR(S): Itagaki, Akinari; Yamatani, Masaaki; Yoshioka, Hiroshi; Watanabe, Akihiko; Miyasato, Keita

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan; Nitto Boseki Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01048832	A2	19890223	JP 1987-204925	19870818
US 4943452	A	19900724	US 1988-232038	19880815
US 5022922	A	19910611	US 1990-529402	19900529

PRIORITY APPLN. INFO.: JP 1987-204925 19870818
US 1988-232038 19880815

OTHER SOURCE(S): MARPAT 111:175443

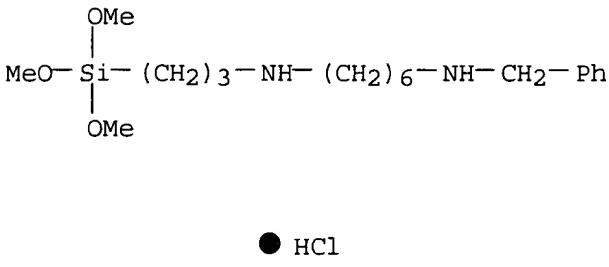
AB Title agents comprise aminosilanes (RO)3SiZNH(CH2)nNHCH2Ph (I; R = Me, Et; R2 = C1-6 divalent hydrocarbyl; n = 4-8) and their hydrochlorides and are useful for treating **glass** fibers for use in composites with epoxy resins and polyimides. A **glass** cloth was impregnated with aqueous AcOH containing 5 g/L (MeO)3SiC3H6NH(CH2)6NHCH2Ph.HCl, dried 15 min at 110°, impregnated with a mixture of Epikote 1001 80, Epikote 154 20, dicyandiamide 4, Me2NCH2Ph 0.2, MEK 20, and Me Cellosolve 45 parts, and

heated 6 min at 160° to give a prepreg, and 8 prepreg layers and 2 Cu foils were pressed at 170° and 35 kg/cm2 for 60 min to give a laminate with good resistance to heat, water, and thermal shock.

IT **123085-09-6**
RL: USES (Uses)
(coupling agents, for **glass** fibers in polyimide and epoxy resins)

RN 123085-09-6 CAPLUS

CN 1,6-Hexanediamine, N-(phenylmethyl)-N'-[3-(trimethoxysilyl)propyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L8 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2003 ACS

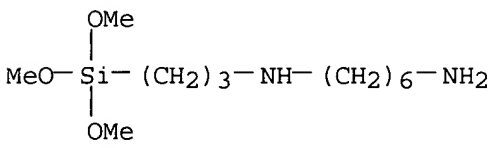
ACCESSION NUMBER: 1983:217666 CAPLUS
DOCUMENT NUMBER: 98:217666
TITLE: Cleansing agents and similar materials with aminosilanes
INVENTOR(S): Barrat, Christian R.; Walker, John R.; Wevers, Jean
PATENT ASSIGNEE(S): Procter and Gamble Co., USA; Procter and Gamble European Technical Center
SOURCE: Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 75990	A2	19830406	EP 1982-201163	19820920
EP 75990	A3	19841017		
EP 75990	B1	19880330		
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
AT 33267	E	19880415	AT 1982-201163	19820920
US 4446035	A	19840501	US 1982-421183	19820922
CA 1200169	A1	19860204	CA 1982-412094	19820923

PRIORITY APPLN. INFO.: GB 1981-29071 19810925
EP 1982-201163 19820920

AB Aminosilanes R2SiR1(CH2)nNR22 (R = alkoxy, R1 = alkoxy or alkyl, R2 = H, alkyl, aminoalkyl, or dialkylaminoalkyl, n = 1-6) are used with detergent compns., fabrics softeners, etc., to inhibit damage to enamel (e.g., in washing machine and dryer drums), **glass**, porcelain, and other surfaces during washing. Thus, a silicate-free, liquid detergent containing 0.05% (MeO)3Si(CH2)3NH(CH2)2NH2 (I) [1760-24-3] was used in washing tests at 85° in an enamel-coated apparatus The rate of corrosion of the enamel was 10% of the rate observed without I.

IT **51895-58-0**
RL: USES (Uses)
(corrosion inhibitors, cleaning compns. and fabric softeners containing)
RN 51895-58-0 CAPLUS
CN 1,6-Hexanediamine, N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



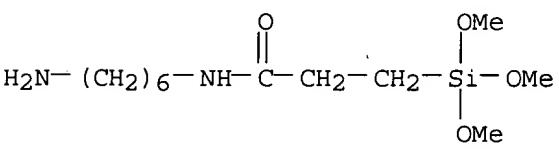
L8 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1974:122151 CAPLUS
DOCUMENT NUMBER: 80:122151
TITLE: **Glass** fiber-reinforced elastomers
INVENTOR(S): Marzocchi, Alfred
PATENT ASSIGNEE(S): Owens-Corning Fiberglas Corp.
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3773607	A	19731120	US 1971-154097	19710617

PRIORITY APPLN. INFO.: US 1971-154097 19710617

AB **Glass** fibers were treated with silylamides prepared by treating (aminoorgano)silanes with organic carboxylic or polycarboxylic acids to improve their adhesion to **glass** fibers. Thus, a dispersion of 1 mole (γ-aminopropyl)triethoxysilane [919-30-2] in petroleum was heated 1 hr at 95.deg. with 1 mole lauric acid [143-07-7], giving (γ-lauramidopropyl)triethoxysilane [51202-98-3]. The amides were also useful as sizing agents for **glass** fibers.

IT **51833-30-8 51833-31-9**
RL: USES (Uses)
(adhesion promoters and sizing agents, for **glass** fibers)
RN 51833-30-8 CAPLUS
CN Propanamide, N-(6-aminohexyl)-3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



RN 51833-31-9 CAPLUS
CN Propanamide, N,N'-1,6-hexanediylbis[3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)